

SEQUENCE LISTING

<110> Francis, Kevin P.
Contag, Pamela R.
Joh, Danny J.

<120> LUCIFERASE EXPRESSION CASSETTES AND METHODS OF USE

<130> 9400-0006P

<140>

<141>

<160> 26

<170> PatentIn Ver. 2.0

<210> 1

<211> 6

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Gram-positive
ribosome binding site

<400> 1

aggagg

6

<210> 2

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer XAF3

<400> 2

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41

<210> 3

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer XAR

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ggcggatccg tcgacttaat ataatagcga acgttg

36

<210> 4

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer XBF

<400> 4

gggaattctc gaggaggaga gaaagaaatg aaatttgga

39

<210> 5

<211> 37

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Primer XBR

<400> 5

ggcggatccg tcgacttagg tatattccat gtggtac

37

<210> 6

<211> 34

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Primer XCF

<400> 6

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<210> 7

<211> 37

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer XCR

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37

<210> 8

<211> 37

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Primer XDF

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<210> 9

<211> 37

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer XDR

<400> 9
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<210> 10
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<212> DNA
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<220>
<223> Description of Artificial Sequence: Primer XEF

<400> 10
gggaattctc gaggaggaaa acaggtatga cttcatatg 39

<210> 11
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer XER

<400> 11
ggcggatccg tcgacttaac tatcaaacgc ttcggtta 38

<210> 12
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: LUXA-REV

<400> 12
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<210> 13
<211> 6
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: BamH I
recognition sequence

<400> 13
ggatcc 6

<210> 14
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector
sequence

<400> 14
ggatcctgca gatgaagcaa gaggaggact ctctatg

37

<210> 15
<211> 645
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pMK4 luxABCDE
Sal

<400> 15
atztatctaa agatgagatt aagccaatag aacgtcatta gcaaaataaa ttatattgcg 60
tcctacaagc aagttcatgc ttatgtttgt aggggggttat tgtggagaat aaaattattt 120
ccaatagaga agggatggta atcattttat agtgaaatat tatgaaattg taataattta 180
gatattgtaa aatctaataa gttgtaataa ttttaagggg taattataaa atttgatgat 240
acagtatatg atttttttgt aatcataatg tcatcaaaca tcaacctatt atacataata 300
aaatcgtata atgatgtagt attcataaat tcggataaaa gaatgttagg aaagttaagc 360
aagaggagga ttttaaagtg caaaaaaaag taattgcagc tattattggg acaagcgcg 420
ttagcgctgt tgcggcaact caagcaaatg cggctacaac tcacacagta aaaccgggtg 480
aatcagtgtg ggcaatttca aataagtatg ggatttcgat tgctaaatta aagtcattaa 540
acaatttaac atctaattcta attttcccaa accaagtact aaaagtatct ggctcaagta 600
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<210> 16
<211> 671
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pMK4 luxABCDE
Sa2

<400> 16
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gtatacaaac aattcgttta gatcgactt atttaaacat accagaatta agaagcgat 180
taaattagtt gctgaaaaga attatgacca aataagttct attgaagaac aagaatttat 240
tggtagattg attcaagtca atccaaatgt taaagcgcaa tcaatttttag atattacatc 300
ggattctgtt tttcataaaa ctggaattgc gcgtggtcat gtgctgtttg ctgaggcaaa 360
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atztattgaa aaagtaaaat taaatgatac ggtaagagca gaagcacgag ttgtaaatca 480
aactgcaaaa cattattacg tcgaagtaaa gtcatatgtt aaacatacat tagttttcaa 540
aggaaatttt aaaatgtttt atgataagcg aggataaaat tatgggttaa ttagcaattg 600

atatgatggg tggcgacaat ggcgctgata tcgtattaga agccgtacaa aaggctgttg 660
aagacttta a 671

<210> 17
<211> 623
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pMK4 luxABCDE
Sa3

<400> 17
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gaagggcgtc gggcggcctt ttcgntattc gcagctgcga aangggatgt gctgaaggcg 120
attaagttgg gtaacgccag ggtttcccag tcangcgttg taaacggcgg ccagtgaatt 180
cccggggatc aagccgttta agtattacga ccagtttata tcattcatgg taaaggacag 240
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ttatttgaaa taagcataaa aattgagcaa atagaaatac atgaagcatg ttatctgata 480
taatttgaa acataataa taattaagga ggattggcat ttatggcaat cgtaaaagta 540
acagatgcag attttgattc aaaagtagaa tctggtgtac aactagtaga tttttgggca 600
acatggtgtg gtccatgtaa aat 623

<210> 18
<211> 671
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pMK4 luxABCDE
Sa4

<400> 18
gatgtatatt caccggggcac atgctgccga aaagcatcac cattaggtgc aatgtcatta 60
ctattgggac gggtttttata ttttattgct actcaagggt ttgtaaatat gcaattaatc 120
ggtgcgatta tctttgtatt aattacaggt cctcttttca agtcatatga ttatgaaagc 180
agcatataat attaaaacgc cttatactaa aaagactaaa gcgatgaaat ttcggaagac 240
ttaaaagcnc aaaattgtag attatataac aaaatcatga atataaatca acaacaaaca 300
gcagtaagat gattccaaat taggaatgat tttactgctg ttttcttttg acattgttac 360
ctctttttca atgatttttt ctttgactac agattcgccc tatctacata tatctcttta 420
atttaattgc ctttcatgtc gttatgtatt atgataataa taattataaa tcgtaacgat 480
tacgttttaa aaagagagag gttttattat gcattggaca attatcgggc gtggcataca 540
gggaactgca atcgacaaa aactattatc aagcggatta acaacagacc gattaacaat 600
cattgacca caccgaaact tttgccaaaag gtttaactca tatacaaatac gaatagaaat 660
gccttattta a 671

<210> 19
<211> 650
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pMK4 luxABCDE
Sa5

<400> 19

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naccagnnaa aatggtaata aaaatggcag aagnaataaa aaaaggataa agagatccca 60
aacggtatag agcttagtat aaaattttcg gacaataaaa taaatacggg ttnaaccnaa 120
ttttaacggg aaagcacttc agaatatggg gtgtttgatc aagaataaaa ttaatgatga 180
aaatttaacg gagaatagtg tatattgagt agatcaagaa taaaaagata attctactat 240
tggttgtaag gcaaataagt agaagatttt aagtgttaatt tctgggtgatt taaataataa 300
tataaatgga agtactgata taaaactttt taacctacta gattcttata atttgctttc 360
cattttatga cgattttttac tcaattgagt gatagaatca aaaaagccat ctcaaaaatt 420
aatcaagcaa acaacattcc aaacaatgct cgcaaatcac caatgtatca ctctccaatt 480
acgtaactat gattttaattt aagcatagtt attgagggtt tgtgatatat agtataaaat 540
taattgagaat taaatttaatt aatgtaaaat tcatcttcgg ggtcgggtgt aattcccaac 600
cggcagtaaa taaagcctgc gacctgctag tatgtatcat attagtggct 650
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<210> 20

<211> 677

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pMK4 luxABCDE
Sa6

<400> 20

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cggaagaacg ctttgaagnt taagctaatt acatctcatc atatgcacgg agatccttaa 60
atgccnaatt gaaagatatt tatatgaatc atcgagneng tcttgatgta gctattgcna 120
gcagatgata tttgtccagc aataactaat ggggaacaag tgaaaggcct ttacctttat 180
gggtccatttg ggcaggtaaa tctttttattc taggtgcaat tgcggaatca gctcaaattc 240
aagaaggtag gttcgacaat tatttattta ccgggaattt attagaacat taaaagggtg 300
ctttaaagat ggttcttttg aaaagaaatt acatcgcgta agagaagcaa acattttaat 360
gcttgatgat attggggctg aagaagtgc tccatgggtg agagatgagg taattggacc 420
tttgctacat tatcgaatgg ttcatgaatt accaacattc tttagttcta attttgacta 480
tagtgaattg gaacatgac tagcgtgac tctgtatggt gaagagaaga ctaaagcagc 540
acgtattatt gaacgtgtca aatctttgtc aacaccatac tttttatcag gagaaaattt 600
cagaaacaat tgaattttta aatgattggt gtataatgaa tacaaatcta aatcgtttaa 660
atgattgaag acaagat 677
```

<210> 21

<211> 622

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pDL289
luxABCDE Sp1

<400> 21

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aggacgntag gacgtgacga gccgaaaggc ttnagcggtc gagccgacac ggacaaagga 60
cgccgccctt ggttacttgt tgtcaattag accatgnaat aaagtaagcg gacatggtat 120
aatagntagg tgcgaacgtt ctttcgctaa gttacgaact tagattggag gtgagcgccc 180
aatacgcaaa ccgcctctcc ccgcgcgttg ccgattcatt aatgcagctg gcacgacagg 240
tttcccgact ggaaagcggg cagtgcgcgc aacgcgaatta atgtgagtta gctcactcat 300
```

```

taggcacccc aggctttaca ctttatgctt cgggctcgta tgttgtgtgg aattgtgagc 360
ggataacaat ttcacacagg aaacagctat gaccatgatt acgccaagct atttaggtga 420
cactatagaa tactcaagct atgcatccaa cgcgttggga gctctccgga tcagggtcatt 480
cgagttaccg atttatcaca tagatgatat ggtaagattc agttagaaga aagagtcaca 540
aacacacttt gtggcttttt tatttcata aaaatggtaa aatagtagga gtagaaatgg 600
agttcgagac atgaaagtaa ta                                     622

```

```

<210> 22
<211> 610
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Description of Artificial Sequence: pDL289
luxABCDE Sp5

```

```

<400> 22
agacaaagaa cgtccgccct tgggtacttgt tgtcaaatta gaccatggaa taaagtaagc 60
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ggtgagcgcc caatacgcaa accgcctctc cccgcgcgtt ggccgattca ttaatgcagc 180
tggcacgaca ggtttcccgga ctggaaagcg ggcagtgagc gcaacgcaat taatgtgagt 240
tagctcactc attaggcacc ccaggcttta cactttatgc ttccggctcg tatgttgtgt 300
ggaattgtga gcggataaca atttcacaca ggaaacagct atgaccatga ttacgccaaag 360
ctatttaggt gacactatag aatactcaag ctatgcatcc aacgcgttgg gagctctccg 420
gatcgtctgc caggttcagc aacacgccc catccgggcg caagtggctg gaccaatgca 480
actggaaaaga agagagctcg gcgcagagaa cgtcgaggcg aggggtggcc gtgagggcgt 540
cgaaaagcga aacgccgata ttgccaccg ccagtgcgcg cttgccgggtg cgcttggcat 600
ctgcctgcat                                     610

```

```

<210> 23
<211> 626
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Description of Artificial Sequence: pDL289
luxABCDE Sp6

```

```

<400> 23
atgcttccgg gntcgtatgt tgtgtggaat tgtgagcgga ataccaattt cacacaggaa 60
acagctatga ccatgattac gccaaagctta tttaggtgac actatagaat actcaagcta 120
tgcattcaac gcgttgggag ctctccggat caaaatgaca atcggcagca tgtgcgggat 180
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cacatcttct tgcgggcaaa gataccggca ataccgagga tgaggaccac tagcgagata 360
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gcagccactg catcatcgat cggggcatca aagagcccga gcacaaatac cagcggcaga 480
gacataaagc cgggcaaagc tgcaggtagc cacagcgaca ctggtgcttc atggacatct 540
cccattgctc gaggtccgtc aaagaaggcg ccgaagacaa tctttgcgga gtaagtaaag 600
gtgaagaacg caccgatacc ggcaac                                     626

```

```

<210> 24
<211> 607
<212> DNA

```

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pDL289
luxABCDE Sp9

<400> 24

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aaaagaagat tctgttgag agcgggaggc acgagtaggc tatgtgctgc aaaatcccaa 120
tcaaatagatt tcaaccaata tgatttttga tgagggtggc ctgggactcc gtttgcgagg 180
tgtggacgag caggaaattg aaacgagagt ctatgaaacc ttgaaaatct gtggtctcta 240
tgaattccgt aattggccca tttctgccct gtcatttggc cagaaaaaac gtgtgactat 300
tgccatcaatt ttggtcttag gcgctgaaat taccctccta gatgaaccga ctgcgggtca 360
agaccagaag aactatactg agattatgga atttctcgaa gaactgcac aacaagggca 420
taccattgtc atgattaccc atgatatgca attgatgtcg gattattcag atcgagccct 480
tgtcatgggt gatggggaat tgattgctga tactgatcca gctagtctgt tgagcaatcc 540
tgagctgtta gtaaaagcca acctaaaaga gacttctatc ttcaacttgg ctaagaaact 600
cgacgtg                                           607
```

<210> 25

<211> 616

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pDL289
luxABCDE Sp16

<400> 25

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tttgccacta cgaagatgac ctaagtcagt ncaagaagaa attattaaga aaaataaagg 120
tgaagactta atccgtcctc actctagaag gaagtcactt agtggcttcc ttttgccttt 180
agaaaatacc tctaaatatg gtaaaatagt agaagaataa tgtgaggaaa atgaatgtca 240
aatagttttg aaattttgat gaatcaattg gggatgcctg ctgaaatgag acaggctcct 300
gcttttagcac aggccaatat tgagcgagtt gtggttcata aaattagtaa ggtatgggag 360
tttcatttcg tattttctaa tattttaccg attgaaatct ttttagaatt aaagaaagg 420
ttgagcgaag aattttctaa gacaggcaat aaagctgttt ttgaaattaa ggctcggctc 480
caagaatttt caaatcagct cttgcagtc tactataggg aggttttctc tgaagggtcca 540
tgtgctagtc aaggttttta gtccctttat caaaatttgc aagttcgtgc tgagggtaat 600
cagctattta ttgaag                                           616
```

<210> 26

<211> 609

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pDL289
luxABCDE Sp17

<400> 26

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cgctgccttg actgcngacg gcgcctccct ccgcacccgc gccgaatgca tccccgaagc 120
catggccaag gcctataagg aggtaggcct cgaccttgcc gagttcaaga aatcgctgac 180
```


atcctggccg	gcgtgcctgt	ggacgtggag	ctgccgtggc	catctgggga	tgactttgtg	240
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ctctatttac	gtaaaatttt	ttcacactat	gagaggaggg	gccatggcta	cagcagtaga	360
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agccgaaaa						609

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